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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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02/15/2005

Francesco Bonfanti

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EXAMINER

HIGGINS, GERARD T

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

06/24/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/524,592	Applicant(s) BONFANTI ET AL.	
	Examiner GERARD T. HIGGINS	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-22 and 24-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-22 and 24-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05/18/2009 has been entered.

Response to Amendment

2. The response filed 05/18/2009 has been entered. Currently claims 20-22 and 24-35 are pending, claim 23 is cancelled, and claims 34 and 35 are new.

3. The amendment filed 12/17/2008 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the concept of a "stamping gap" or "stamped gap" was not present in the specification as filed and does not necessarily flow from the drawings.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 20-22, 24-26, 34, and 35 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

With regard to claim 20, the Examiner does not find support for the limitation that the stacked films "are stacked flat on top of one another without being folded" in the specification as originally filed. The Examiner does not find support for this limitation in Figure 1C because there is no indication that the films are not folded or that they are stacked **flat** on top of one another. These limitations do not necessarily flow from the drawings.

The cited phraseology clearly signifies a "negative" or "exclusionary" limitation for which the applicants have no support in the original disclosure. Negative limitations in a claim which do not appear in the specification as filed introduce new concepts and violate the description requirement of 35 USC 112, first paragraph, *Ex Parte Grasselli, Suresh, and Miller*, 231 USPQ 393, 394 (Bd. Pat. App. and Inter. 1983); 783 F. 2d 453.

The insertion of the above phraseology as described above positively excludes a folded film arrangement; however, there is no support in the present specification for

such exclusion. While the present specification is silent with respect to the use of a folded film arrangement, is noted that as stated in MPEP 2173.05(i), the “mere absence of a positive recitation is not the basis for an exclusion.”

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 24, 25, and 27-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 24 and 27 there is the limitation "**several** of the at least **one**." This is an extremely confusing phraseology and the Examiner suggests using the language from page 3, lines 10-18. The words "several" and "one" are contradictory, and therefore the phrase "several of the at least one" renders this claim indefinite. It is impossible to have one, yet also have several. The Examiner interprets the limitation as "several dividing lines," wherein the word several is taken to be more than one.

In claims 25 and 29 there is the limitation "**several** of the at least **one**." This is an extremely confusing phraseology and the Examiner suggests using the language from page 3, lines 19-26. The words "several" and "one" are contradictory, and therefore the phrase "several of the at least one" renders this claim indefinite. It is impossible to have one, yet also have several. The Examiner interprets the limitation as "several dividing lines," wherein the word several is taken to be more than one.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 27, 28, 30, and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Grawey et al. (5,055,734).

With regard to claim 27, Grawey et al. disclose the devices of Figures 1 and 2.

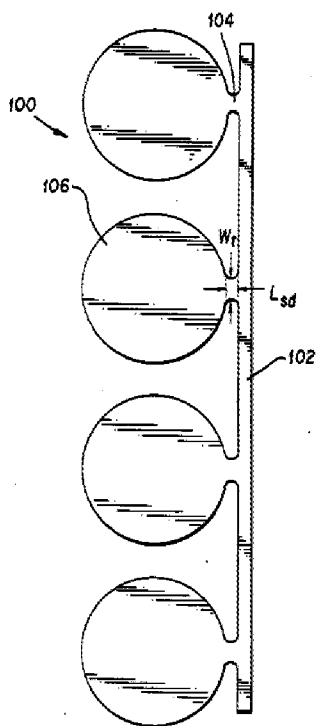


FIG. 1

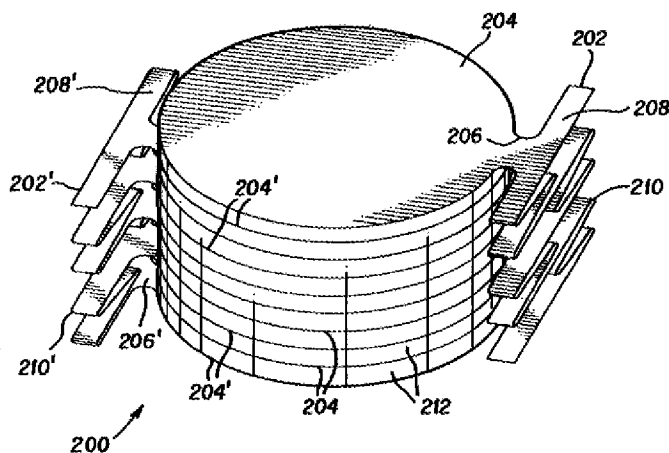


FIG. 2

The film of Figure 1 has a dividing line that stretches vertically in between the parts **102** and **106**, which is interrupted by the webs **104**. It is clear from the figure that the webs have a width that is, on average, less than an average spacing between adjacent webs. The parallel dividing lines to which applicants are referring to in claim 27 would fall in between the parts **106** of Grawey et al., i.e. in the x-direction in Figure 1 above (left-to-right on the paper). Therefore, the mirror plane spoken of in applicants' claim 27 would be in the y-direction (up-and-down) and it clear that performing a reflection about said mirror plane of the device of Figure 1 would generate a device that would not be superimposable. With regard to the limitation that the stamped pattern is for "predetermining the edges of cut for future separation into individual elements," the Examiner deems this to be an intended use limitation of the stamped film, which is not dispositive of patentability; however, it is noted by the Examiner that the device of Grawey et al. may be severed along the parallel dividing lines that fall in between the parts **106** of Grawey et al., i.e. in the x-direction in Figure 1 above (left-to-right on the paper). This would read on applicants' intended use limitation.

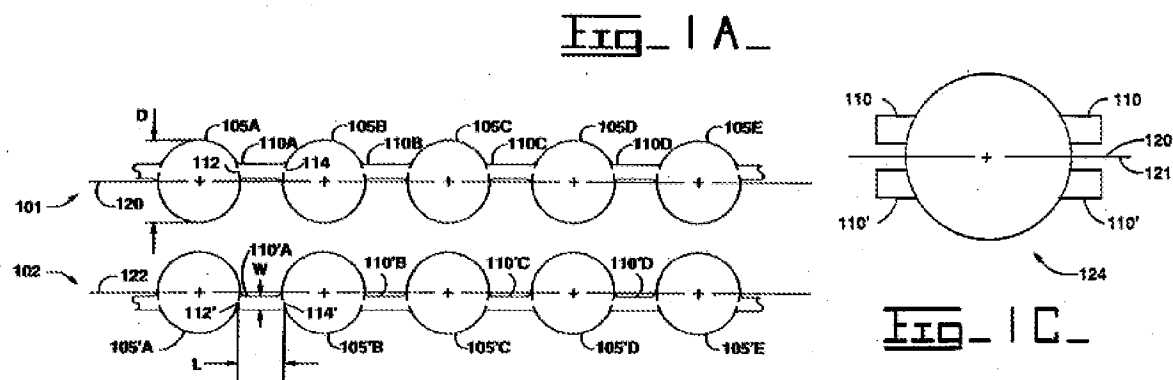
With regard to claim 28, it is clear from Figure 1 and 2 that the width of all the webs, respectively, is less than the spacing to said adjacent webs.

With regard to claim 30, it is clear that a 180° rotation performed on the device of Figure 1 would generate a device that would not be superimposable with the original device.

With regard to claim 32, the device of Grawey et al. is designed as a “multiple electrode conductor for piezoelectric solid state motor stacks” (col. 1, lines 9-11). Cathodes or anodes are electrodes and therefore this anticipates applicants’ claim 32.

10. Claims 27, 28, 30, and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Swanson et al. (5,155,409).

Swanson et al. teach the piezoelectric actuator arrangement using first and second single-piece conductors **101** and **102** of Figures 1A and 1C.



An individual single-piece conductor reads on applicants’ stamped film. The distance ‘L’ defines and therefore reads on applicants’ at least one dividing line. The connecting portions **110** read on applicants’ webs. It is clear from the Figures that there are multiple dividing lines that are parallel (i.e. **110A**, **110B**, **110C**, etc.). The lines **120** and **122** illustrate applicants’ claimed mirroring the stamped film at a mirror plane that intersects the stamped film centrally and perpendicularly to said several of the at least one dividing line. Figure 1A illustrates the fact that the mirror image of the first single-piece conductor will not be superimposable on the second single-piece conductor. With

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regard to the limitation that the stamped pattern is for “predetermining the edges of cut for future separation into individual elements,” the Examiner deems this to be an intended use limitation of the stamped film, which is not dispositive of patentability; however, it is noted by the Examiner that the device of Swanson et al. may be severed along the parallel dividing lines (i.e. **110A**, **110B**, **110C**, etc.). This would read on applicants’ intended use limitation.

With regard to claim 28, it is clear from Figure 1A that the width of all the webs, respectively, is less than the spacing to said adjacent webs.

With regard to claim 30, it is clear that a 180° rotation performed on the device **101** would generate a device that would not be superimposable with the original device **102**. This is the design of the invention

With regard to claim 32, the device of is for use as electrodes in piezoelectric devices. Cathodes or anodes are electrodes and therefore this renders obvious applicants’ claim 32.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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12. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Grawey et al. (5,055,734) as applied to claim 27, and further in view of Bechtel et al. (6,402,328).

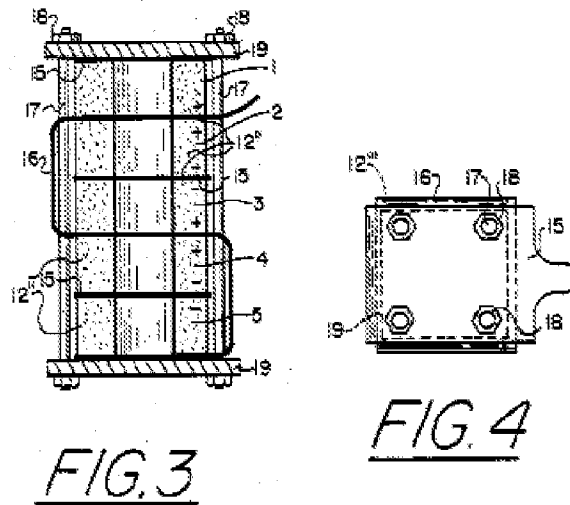
Grawey et al. disclose the limitations of applicants' claim 27 as seen in section 9 above. They also disclose the use of the aforementioned devices as a transducer, more specifically an actuator; however, they fail to specifically disclose the use of said devices as either an electrochemical or electrochromic device.

Bechtel et al. disclose the use of transducers in the field of electrochromic automatic dimming rearview mirrors (col.2, lines 22-24).

Since both Grawey et al. and Bechtel et al. are drawn to transducers; it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the known device of Grawey et al. in an electrochromic device such as the one described by Bechtel et al. The combined device would have produced predictable results to one having ordinary skill in the art. A further motivation to use this device as an electrochromic device is seen at col. 2, lines 43-45 of Grawey, which teaches that their article has longer operating lifetimes.

13. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Grawey et al. (5,055,734) as applied to claim 27, and further in view of Abbott (4,499,566).

Grawey et al. disclose all the limitations of applicants' claim 27 in section 9 above; however, it fails to disclose positioning holes. Abbott discloses the transducer stack seen in Figures 3 and 4.



The transducer stack comprises 2-4 positioning rods **17** (col. 4, lines 3-9), which obviously must have positioning holes for the positioning rod to go through said transducer stack.

Since both Grawey et al. and Abbott are drawn to transducer assemblies; it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the known prior art element of positioning holes in the transducer assembly of Grawey et al. Each element would have performed the same function as it did separately, and the results of this combination would produce predictable results to one having ordinary skill in the art. The motivation for doing so would be to provide a stable structure that would not wear down or shift position over time.

14. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Swanson et al. (5,155,409).

Swanson et al. teach all of the limitations of applicants' claim 27 in section 10 above; however, they fail to teach the electrode arrangement of applicants' claim 29.

With regard to claim 29, this represents a duplication of parts. It has been held that "mere duplication of parts has no patentable significance unless a new and unexpected result is produced." Please see MPEP 2144.04 and *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). In this sense applicants are duplicating the entire electrode assembly (i.e. **101**) in three-dimensions (i.e. y-axis, or up and down on the paper). Producing electrodes in three-dimensions would not produce a new and unexpected result; furthermore, it would have been obvious to produce this three-dimensional network electrode with the same asymmetry in the y-direction as is present in the x-direction of Figure 1A above. The reason for doing this would to provide a single electrode that could be assembled with great ease and little time required. Swanson et al. teach the usage of asymmetric connectors to provide ease of construction of an assembled device, while still only being required to produce one type of assembly. This would serve to save money in productions costs and would have been obvious to one having ordinary skill.

15. Claim 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swanson et al. (5,155,409) as applied to claim 27, in view of Bechtel et al. (6,402,328).

Swanson et al. disclose all of the limitations of applicants' claim 27 as seen in section 10 above. They also disclose the use of the aforementioned devices as a

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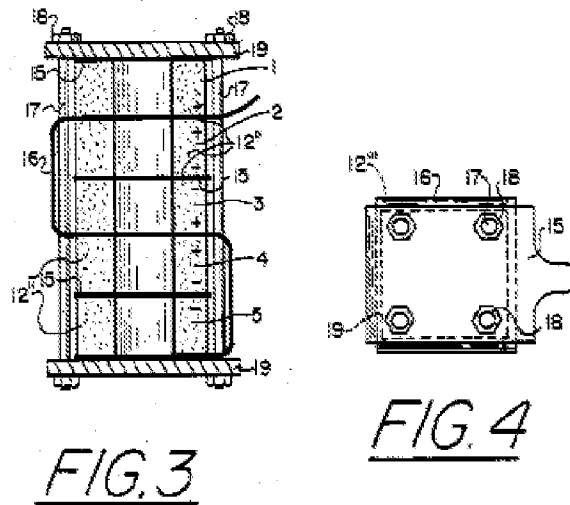
transducer, more specifically an actuator; however, they fail to specifically disclose the use of said devices as either an electrochemical or electrochromic device.

Bechtel et al. disclose the use of transducers in the field of electrochromic automatic dimming rearview mirrors (col.2, lines 22-24).

Since Swanson et al. and Bechtel et al. are drawn to transducers; it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the known device of Swanson et al. in an electrochromic device such as the one described by Bechtel et al. The combined device would have produced predictable results to one having ordinary skill in the art.

16. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Swanson et al. (5,155,409) as applied to claim 27, and further in view of Abbott (4,499,566).

Swanson et al. disclose all the limitations of applicants' claim 27 in section 10 above; however, it fails to disclose positioning holes. Abbott discloses the transducer stack seen in Figures 3 and 4.



The transducer stack comprises 2-4 positioning rods **17** (col. 4, lines 3-9), which obviously must have positioning holes for the positioning rod to go through said transducer stack.

Since both Swanson et al. and Abbott are drawn to transducer assemblies; therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the known prior art element of positioning holes in the transducer assembly of Swanson et al. Each element would have performed the same function as it did separately, and the results of this combination would produce predictable results to one having ordinary skill in the art. The motivation for doing so would be to provide a stable structure that would not wear down or shift position over time.

Response to Arguments

17. Applicant's arguments, see Remarks, filed 05/18/2009, with respect to the rejection of claims 20-22 and 24-33 under 35 USC 112, first paragraph, the rejection of claims 20-22 and 24-33 under 35 USC 112, second paragraph, and the rejection of claims 20-22 and 24-26 utilizing prior art have been fully considered and are persuasive. The relevant rejections have been withdrawn.

The Examiner notes that the phraseology "several of the at least one" remains indefinite. The Examiner also notes with regard to the term "several of the at least one" being present in various existing US Patents, it has been held that "it is immaterial whether similar claims have been allowed in another application", *In re Giolito and Hofmann*, 188 USPQ 645. The claims allowed in other applications have no direct bearing on the present claims. The Examiner interpreted the claim limitations as being "several dividing lines."

The concept of a "stamping gap" or "stamped gap" as has been amended into the specification on 12/17/2208 remains new matter. The term "stamped spacing" would be acceptable terminology. The term "gap" is not necessarily present in the specification and there is no indication that the spacing in between webs should be called a "gap." The Examiner addressed the term "gap" in his Office action mailed on 02/18/2009 because that was the terminology used in the claims, and the Examiner is required to examine all limitations in the claims irregardless if they are deemed to lack written descriptive support due to being new matter. Please see MPEP 2163(III).

The Examiner has removed the prior art rejections to the stacked film arrangement of claims 20-22 and 24-26, wherein the at least two stamped films "are stacked flat on top of one another without being folded" because the prior art does not teach that the films are stacked "without being folded;" however, the Examiner does not find written descriptive support for this limitation in the specification as originally filed.

18. Applicant's arguments filed 05/18/2009 have been fully considered but they are not persuasive.

With regard to the rejection of claims 27-33, applicants argue that Grawey et al. and Swanson et al. "cannot teach that the dividing lines...predetermine the edges of cut for future separation into individual elements."

The Examiner respectfully disagrees and notes that this is an intended use limitation of the stamped film, which is not dispositive of patentability; however, it is noted by the Examiner that the device of Swanson et al. may be severed along the parallel dividing lines (i.e. **110A**, **110B**, **110C**, etc.). This would read on applicants' intended use limitation. Figure 1A is shown as a continuous article of indefinite length as per the wavy left and right ends of the device. Clearly a piezoelectric actuator will be of a definite length, and therefore one of ordinary skill would understand how to cut the device at the webs in order to form a piezoelectric stack of a determined length; hence, the Examiner deems Swanson et al. teach the intended use limitations of applicants' claim 27.

With regard to the same limitation in Grawey et al. that the stamped pattern is for “predetermining the edges of cut for future separation into individual elements,” the Examiner deems this to be an intended use limitation of the stamped film, which is not dispositive of patentability; however, it is noted by the Examiner that the device of Grawey et al. may be severed along the parallel dividing lines that fall in between the parts **106** of Grawey et al., i.e. in the x-direction in Figure 1 above (left-to-right on the paper). One of ordinary skill would know to do this to provide an electrode that was the proper length for applicants’ intended use.

Conclusion

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to GERARD T. HIGGINS whose telephone number is (571)270-3467. The examiner can normally be reached on M-Th 10am-8pm est. (Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Kevin Bernatz, acting SPE for Carol Chaney, can be reached on 571-272-1505. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GERARD T. HIGGINS
Examiner
Art Unit 1794

/G. T. H./
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